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15 November 2016

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois RCRA CMI Monthly Progress Report for October 2016

Dear Mr. Nordine:

Enclosed please find the RCRA CMI Monthly Progress Report for the Central Wire facility located in Union, Illinois for October 2016.

This report includes the eDMR for the groundwater pump and treat facility and the laboratory analytical report, which includes the effluent data used in the eDMR for October 2016.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT:jt

encl

cc:	Joyce Munie	IEPA
	Robert Kay	USGS
	Gerald W. Ruopp	Central Wire
	Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
October 2016

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 631,000 gallons per day (GPD) with a maximum daily flow of 639,000 GPD. The monthly NPDES sample met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for the month is attached to this report.

The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples were collected on October 11, 2016 and arrived at Test America Laboratory on October 12, 2016 at 1.0° C.

The **Ex. 6 Personal Privacy (PP)** pumping hours per week are tabulated in Table 1, below.

Table 1
Summary of 2016 Irrigation Pumping Hours per Week at **Ex. 6 Personal Privacy (PP)**
October 3 through November 2, 2016

Date of Hour Meter Reading	Ex. 6 Personal Privacy (PP)		Ex. 6 Personal Privacy (PP)		Hours of Irrigation Well Pumping/Week
	Hour Meter Reading	Hours Pumped	Hour Meter Reading	Hours Pumped	
9/26/2016	6494	0	4085	0	0
10/3/2016	6507	13	4101	16	29
10/10/2016	6516	9	4113	12	21
10/17/2016	6525	9	4132	19	28
10/24/2016	6530	5	4155	23	28
11/2/2016	6534	4	4156	1	5
Totals		40		71	111

On November 2, Central Wire personnel downloaded the data logger tracking the depth of the water in monitoring well DGW-2I in the field for October data to a laptop computer and reinserted the same data logger into the well.

The groundwater level monitoring data from downgradient monitoring well DGW-2I for October 2016 and the October 2016 precipitation and irrigation well pumping over the month have been graphed / plotted and are attached to this report as Table 2.

The depth to water measured from the top of the well casing was 7.25 feet in DGW-2I on October 3, 2016 at the beginning of the month. Therefore, there nominally was 23.09 feet of water above the data logger (30.34 ft. [depth of data logger] – 7.25 ft. [water level below top of casing]). The last data logger reading on October 3 at 1200 hours also indicated there were 23.09 feet of water above the data logger (see entry 3074 on Table 2 of the September 2016 Monthly Progress Report [MPR]), the same as the manual reading.

The depth to water measured from the top of the well casing was 7.09 feet in DGW-2I on November 2, 2016 at the end of the month; therefore, there nominally was 23.25 feet of water above the data logger (30.34 ft. [depth of data logger] – 7.09 ft. [water level below top of casing]). The last data logger reading on November 2 at 1100 hours (line 2876 on Table 2 of the November MPR) indicated there were 23.23 feet of water above the data logger, 0.02 feet (0.086%) less than the manual reading.

The first logger reading on October 3 was 23.09 feet and the last logger reading on November 3 was 23.23 feet for a difference from start to end of month of 0.14 feet (0.6%).

The groundwater elevation in October 2016 reached its highest level on October 28 at 814.481 feet above mean sea level. The groundwater elevation reached its low on October 17 at 813.212 feet above mean sea level for a total variation over the month of 1.269 feet.

EPA has requested Central Wire to collect monthly samples for VOA analysis from the **Ex. 6 Personal Privacy (PP)**. The October sample was collected on October 3 and delivered to the lab on October 4 at 0.3° C.

The November sample was attempted to be collected on November 3. The pumps were not operating because irrigation was not taking place due to an adequate amount of recent rainfall. Central Wire will contact the **Ex. 6 Personal Privacy (PP)** to ask them to call Central Wire when the pumps are running so a sample can be collected.

2. Summary of Validated Data and Results

Pump & Treat System NPDES Sampling

The monthly effluent sampling took place on October 11, 2016. The permit limitations and analytical results are shown in Table 3, below.

Table 3
Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum) µg/L	Analytical Results, µg/L
1,1,1-Trichloroethane	20	< 0.38
Tetrachloroethene	20	< 0.37
Trichloroethene	20	<0.16

J = Result is less than the Reporting Limit but >= to the Method Detection Limit and the concentration is an approximate value

The October NPDES analytical report is attached to this Monthly Progress Report.

This report also has environmental analytical results for the North Pond and South Pond. These ponds are Illinois EPA-regulated seepage ponds for Central Wire's rinse waters from the annealing process, non-contact cooling water, boiler blowdown and storm water.

2016 RCRA CMI Field Investigation

On October 11, 2016, Central Wire collected three samples at GP-31 in the South Branch Nursery, see Figure 1. These samples were collected at 85, 57 and 27 feet below ground surface (bgs) and were submitted to the laboratory for 24 hour turn around to determine where GP-32 and GP-33 would be located.

The three samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. The sample at GP-31D (D =deep = 85 feet bgs) detected toluene at 0.30 µg/L and was qualified as an estimated value. Toluene is not a chemical of concern at Central Wire. GP-31I (Intermediate or 57 feet bgs) had no detections of VOCs. GP-31S (Shallow or 27 feet bgs) detected one VOC – 1,1,1-Trichlorethane at 3.4 µg/L, significantly below the EPA Maximum Contaminant Limit of 200 µg/L.

Based on these results, EPA and Central Wire determined that GP-32 would be placed at the same latitude as GP-31 and EPA determined that GP-33 would be located at a latitude slightly north of GP-31 (see Figure 1). These two Geoprobe locations were sampled on October 13, 2016 in the same manner, i.e., samples were collected at 85, 57 and 27 feet bgs and were analyzed for VOCs. The sample results are shown in Table 4, below, and the laboratory analytical reports for GP-31, -32 and -33 are attached to this report.

Table 4
Analytical Results for GP-32 & GP-33

Sample Point	Chemical	Concentration (µg/L)	MCL (µg/L)
GP-32D	No Detections		
GP-32I	No Detections		
GP-32S	1,1-Dichloroethene	0.77 J	7
	1,1-Dichloroethane	0.84 J	No MCL
	Cis-1,2-Dichloroethene	1.2	70
GP-33D	No Detections		
GP-33I	No Detections		

GP-33S	Acetone	9.3	No MCL
	1,1,1Trichloroethane	3.4	200

J = Result is < the Reporting Limit but > the Method Detection Limit and the concentration is an approximate value.

Because the three chemicals of concern detected in GP-31S, GP-32S and GP-33S are significantly below their respective MCL Central Wire believes that the boundaries of the chlorinated plume have been detected and that 2016 RCRA CMI Field Investigation can be concluded at this point.

On October 3, 2016, Central took the first of the monthly samples at the [Ex. 6 Personal Privacy (PP)] [Ex. 6 Personal Privacy (PP)] as requested by EPA. Upon reviewing the analytical data, no Central Wire Chemicals of Concern were found in the irrigation well sample. However, there were detections for the following chemicals:

- 1,2,4- & 1,3,5-Trimethylbenzene
- Benzene
- Ethylbenzene
- Isopropyl benzene
- Xylene
- Naphthalene
- N-propyl benzene
- Toluene

While these chemicals were found in the sample, three of the eight did not have EPA Maximum Contaminant Limit (MCL) and the other five were well below the MCLs for that chemical.

On October 11, 2016, while in the field conducting Geoprobe sampling, Central Wire informed the [Ex. 6 Personal Privacy (PP)] manager of this occurrence. Upon checking with his employees, he learned that there had been a recent failure of a hydraulic hose on a piece of equipment close to the [Ex. 6 Personal Privacy (PP)]. He was advised to locate the area of the spill and dig out and dispose of the contaminated soil.

3. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected, analyzed and reported as required in our NPDES permit.

RCRA monitoring wells and selected residential wells will be collected on a six month cycle, usually in June and December.

Monthly samples will continue to be collected at the [Ex. 6 Personal Privacy (PP)] at the request of U.S. EPA when the pumps are operating, usually between April and October of each year.

Central Wire is discussing the mechanics of managing the water generated in surge blocking Extraction Well No. 2 with Municipal Well & Pump and has a cost estimate from them. Central Wire is working with Heritage Environmental Services to determine the proper tankage volumes and arrangements to obtain their cost estimate.

- 4 **Anticipated Problem Areas and Recommended Solutions** – None.
- 5 **Key Personnel Changes** – None.
- 6 **Target and Actual Completion Dates** – This project has not deviated from the project schedule.